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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 10/565,021   | 08/29/2006  | Richard Schlegel     | GUH-P01-007               | 9002             |
| 28120 7590 03/06/2007<br>FISH & NEAVE IP GROUP<br>ROPES & GRAY LLP<br>ONE INTERNATIONAL PLACE<br>BOSTON, MA 02110-2624 |             |                      | EXAMINER<br>AEDER, SEAN E |                  |
|  |             |                      | ART UNIT<br>1642          | PAPER NUMBER     |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             |                      | MAIL DATE                 | DELIVERY MODE    |
| 31 DAYS  |             |                      | 03/06/2007                | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                      |                   |  |
|------------------------------|----------------------|-------------------|--|
| <b>Office Action Summary</b> | Application No.      | Applicant(s)      |  |
|                              | 10/565,021           | SCHLEGEL, RICHARD |  |
|                              | Examiner             | Art Unit          |  |
|                              | Sean E. Aeder, Ph.D. | 1642              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 17, 25-29, 31, 38, 46, 53 and 60-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-8, 17, 25-29, 31, 38, 46, 53 and 60-72 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## DETAILED ACTION

### ***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-8, 17, and 60-72, as specifically drawn to a method of diagnosing or aiding in the diagnosis of at least two biomarkers and a kit for performing said method.

It is noted that the claims of the instant application have been determined to include linking claims. Claim 25 link(s) inventions 2-5, as set forth below. The restriction requirement among the linked inventions is subject to the nonallowance of the linking claim(s), claim 25. Upon the allowance of the linking claim(s), the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise including all the limitations of the allowable linking claim(s) will be entitled to examination in the instant application. Applicant(s) are advised that if any such claim(s) depending from or including all the limitations of the allowable linking claim(s) is/ are presented in a continuation or divisional application, the claims of the continuation or divisional application may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 44 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Group 2, claim(s) 26, as specifically drawn to a method of treating a female with cervical cancer comprising administering a small molecule that blocks interaction between Myc and HPV E6.

Group 3, claim(s) 27, as specifically drawn to a method of treating a female with cervical cancer comprising administering a nucleic acid that blocks interaction between Myc and HPV E6.

Group 4, claim(s) 28, as specifically drawn to a method of treating a female with cervical cancer comprising administering a polypeptide that blocks interaction between Myc and HPV E6.

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Group 5, claim(s) 29, as specifically drawn to a method of treating a female with cervical cancer comprising administering an antibody that blocks interaction between Myc and HPV E6.

Group 6, claim(s) 31, drawn to a method of treating a female with cervical cancer comprising administering an agent which blocks or reduces the level of expression of transferrin receptor.

Group 7, claim(s) 38, drawn to a method of treating a female with cervical cancer comprising administering an agent which blocks signaling through the beta-catenin pathway.

Group 8, claim(s) 49, drawn to a method of treating a female with cervical cancer comprising administering an agent which blocks or reduces the level of expression of hTERT.

Group 9, claim(s) 53, drawn to a method of treating a female with cervical cancer comprising administering an agent which blocks or reduces the level of expression of IGFBP-3.

The inventions listed as groups 1-9 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking groups 1-9 appears to be that they all relate to the special technical feature of a method of diagnosing or aiding in the diagnosis of at least two biomarkers selected from a group comprising HPV E7 and telomere length.

However, Anderson et al (The American Journal of Pathology, Jul 1997, 151(1):25-31) teaches a method of diagnosing or aiding in the diagnosis of at least two biomarkers selected from a group comprising HPV E7 and telomere length (see page 28, in particular).

Therefore, the technical feature linking the inventions of groups 1-9 does not constitute a special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art.

Accordingly, groups 1-9 are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

### ***Species***

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

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Claims 1-8, 17, and 60-72 are generic to a plurality of disclosed patentably distinct species of **"biomarkers"** comprising the following: hTERT polypeptide; hTERT polynucleotide; IGFBP-3 polypeptide; IGFBP-3 polynucleotide; transferrin receptor polypeptide; transferrin receptor polynucleotide; beta-catenin polypeptide; beta-catenin polynucleotide; Myc-HPV E6 interaction; HPV E7 polypeptide; HPV E7 polynucleotide; telomere length. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The species represent separate and distinct products which are made by materially different methods, and are used in materially different methods which have different modes of operation, different functions and different effects. Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E. Aeder, Ph.D. whose telephone number is 571-272-8787. The examiner can normally be reached on M-F: 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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